UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF INDIANA INDIANAPOLIS DIVISION

SANJAY PATEL, on behalf of his minor child, RUT PATEL)	
Plaintiff,)	Case No. 1:09-cv-0360-TWP-DMI
vs.)	
MENARD, INC.,)	
Defendant.)	

ENTRY ON DEFENDANT'S MOTION TO EXCLUDE PORTIONS OF THE EXPECTED TESTIMONY OF DR. ROBERT SHUMAN

The parties do not dispute that Plaintiff's proposed expert witness, Dr. Robert Shuman, has the pedigree and experience to be an eminently qualified expert under Rule 702 of the Federal Rules of Evidence. But sterling credentials alone are not enough. As the Seventh Circuit has repeatedly recognized, "[a] supremely qualified expert cannot waltz into the courtroom and render opinions unless those opinions are based upon some recognized scientific method and are reliable and relevant under the test set forth by the Supreme Court in *Daubert*." *Lewis v. CITGO Petroleum Corp.*, 561 F.3d 698, 705 (7th Cir. 2009) (citations and internal quotations omitted).

Here, Defendant Menard, Inc. ("Menards") contends that some of Dr. Shuman's opinions are based on pure speculation rather than scientific principles. Such opinions, Menards contends, are inadmissible under Rule 702. The Court agrees. For the reasons set forth below, Menards' Motion to Exclude Portions of the Expected Testimony of Dr. Robert Shuman (Dkt. 112) is **GRANTED**.

Legal Standard

The admission of expert testimony is governed by Federal Rule of Evidence 702 and the principles set forth in *Daubert v. Merrell Dow Pharm.*, *Inc.*, 509 U.S. 579 (1993). Rule 702 provides:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Fed. R. Evid. 702. Under this framework, the district court performs a "gatekeeping" function to ensure that scientific evidence is both relevant and reliable. *Daubert*, 509 U.S. at 589. This is a three-step analysis: the witness must be qualified as an expert by knowledge, skill, experience, training, or education, Fed. R. Evid. 702; the expert's reasoning or methodology underlying the testimony must be scientifically reliable, *Daubert*, 509 U.S. at 592-93; and the testimony must assist the trier of fact to understand the evidence or to determine a fact in issue. Fed. R. Evid. 702.

Before considering whether the testimony will assist the trier of fact, "a district court must make a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid." *Happel v. Walmart Stores, Inc.*, 602 F.3d 820, 824 (7th Cir. 2010) (citation and internal quotations omitted). The Supreme Court has identified the following factors as pertinent to this inquiry: (1) whether the theory has been tested; (2) whether the theory has been subjected to peer review and publication; (3) the known or potential rate of error; and (4) whether it has been generally accepted within the relevant scientific community. *Daubert*, 509 U.S. at 593-94.

Here, the Court's primary focus is on the *reliability* of Dr. Shuman's methodology and reasoning. Of course, reliability and correctness are two distinct concepts. "[T]he soundness of the factual underpinnings of the expert's analysis and the correctness of the expert's conclusions based on that analysis are factual matters to be determined by the trier of fact, or, where appropriate, on summary judgment." *Smith v. Ford Motor Co.*, 215 F.3d 713, 718 (7th Cir. 2000). As *Daubert* noted, "[t]he focus . . . must be solely on principles and methodology, not the conclusions they generate." *Daubert*, 509 U.S. at 595. Overall, in deciding whether the requirements of *Daubert* have been met, "the district court's foremost objective must be to rule out 'subjective belief or unsupported speculation." *Rogers v. Ford Motor Co.*, 952 F. Supp. 606, 615 (N.D. Ind. 1997) (quoting *O'Connor v. Commonwealth Edison Co.*, 13 F.3d 1090, 1106 (7th Cir. 1994)).

Background

While Plaintiff Sanjay Patel and his family were shopping at Menards, a 160-pound column of fiberglass insulation fell and injured Plaintiff's son, R.P. ("R.P."). Plaintiff has disclosed Dr. Shuman – a specialist with over 36 years of experience in child neurology, neuroimaging, and neuropathology – as one of his expert witnesses. On June 2, 2010, Dr. Shuman completed an in-person evaluation of R.P. and reviewed R.P.'s medical records. Dr. Shuman also interviewed R.P.'s parents, reviewed the family's medical history, reviewed the deposition transcripts of R.P.'s teachers, and reviewed the report of the neurosurgeon who treated R.P. immediately after the accident.

On June 15, 2011, counsel for Menards deposed Dr. Shuman, who testified that, as a result of the accident, R.P. lost 20 to 25% of tissue in the poles of his frontal lobes. Dr. Shuman conceded that R.P. *currently* doesn't have problems with his judgment or maturity level.

However, according to Dr. Shuman, an insufficient mass of healthy frontal lobe tissue could have numerous adverse effects on R.P.'s *future* behavior as he enters adolescence, and these effects could continue throughout the remainder of his life. Specifically, the frontal lobe damage could impair R.P's impulse control, judgment, executive function, and reasoning. Dr. Shuman further testified that the injury could affect R.P.'s future relationships: "the way a man handles himself with women . . . [t]he way a man handles himself with his man mates."

Dr. Shuman then provided a "best case scenario" and a "worst case scenario" for R.P. Under a best case scenario, Dr. Shuman opined, R.P. will be "a little bit disinhibited, touching girls inappropriately but responding to guidance; struggling with abstract concepts in 'Lord Jim', by Conrad;¹ difficulty planning for his college career." Under a worst case scenario, R.P. will be "[1]ike the football player Duerson, who became abusive with his wife, destructive with his investment partners; given to outbursts of aggression with his children, and with all those around him." Counsel then inquired whether these scenarios were a "guarantee[]" or whether they just "increase[d] the risk." Dr. Shuman responded, "[i]t certainly increases the risk. I don't want to say guarantees. It's more likely than not . . . We're really in the midst of a neuro-chemical revolution in the pharmaceutical industry. And a good deal can happen in five years, 10 years."

Counsel then asked Dr. Shuman if he could quantify the likelihood that R.P. would have

¹"Lord Jim" is a novel by Joseph Conrad, originally published as a serial in *Blackwood's Magazine* from October 1899 to November 1900. See Wikipedia, "Lord Jim," available at http://en.wikipedia.org/wiki/Lord_Jim (last visited, September 22, 2011).

²Presumably, Dr. Shuman is referring to Dave Duerson, the former Notre Dame and Chicago Bears safety who tragically committed suicide in February 2011. Before his death, Mr. Duerson sent a text message to his family, expressing the desire to donate his brain for research at the Boston University School of Medicine. On May 2, 2011, research neurologists at Boston University confirmed that Mr. Duerson suffered from a neurodegenerative disease linked to concussions. See Wikipedia, "Dave Duerson," available at http://en.wikipedia.org/wiki/Dave_Duerson (last visited, September 22, 2011).

either have a "best case scenario" or a "worst case scenario." Dr. Shuman testified as follows:

Seat of the pants. Art instead of science. Estimate. Based on the extent of damage visible on the MRI, the impact of the Glasgow Coma Scale of only eight a couple hours after the event, the integrity of early development, the support – the supportive family, the whimsical, agreeable personality type, I would say that the chances are – God – perhaps 75 percent that [R.P.] will – oh, maybe 60 percent, 60 to 75 percent that R.P. will get through this with a minimal of damage that I talked about; . . . 30, 40 percent chance of worst possible scenario. Two chances out of three for – probably two chances out of three, given this family and this situation. Two chances out of three that he'll have all of the support system around him, and it will be used properly. And he'll have difficulty with executive planning, but he won't degenerate into aggressive impulsivity. One chance out of three, that things won't work, and that he will be a terrible adult. Seat of the pants.

(Emphasis added). When asked if there was a chance that R.P. would not experience any appreciable problems like those described, Dr. Shuman testified, "I don't think so."

Counsel for Menards then asked Dr. Shuman if any medical literature supports this position. Dr. Shuman first responded that the medical literature is "biased toward bad outcome" and has evolved based on the "recent discovery or acknowledgment of chronic traumatic encephalopathy." But Dr. Shuman then conceded that the "chronic" label didn't apply to R.P., since he was only involved in a "single event without repetition." Counsel then asked Dr. Shuman whether the medical literature supported the view that children of R.P.'s age who suffer frontal lobe damage have problems upon entering adolescence. Dr. Shuman responded, "[t]here is no such literature" and that the only available literature is "retrospective." Counsel then inquired about the existence of any relevant studies.

Q. Are you aware of any studies where, for example, a group of children who had sustained a single head trauma were then followed through adolescence to determine the likelihood of developing behavioral problems because of damage to the frontal lobes?

A. No. It's all retrospective. I don't have any statistical figures at all. What I have is, children who are in trouble who retrospectively had the MRI which showed damage in the frontal lobes.

Counsel for Menards then asked if there are any studies regarding children who suffered a head trauma, but were "normal" throughout adolescence and young adulthood. Dr. Shuman responded, "[a]necdotally, there are none." He continued, "[t]he normal adolescent is . . . normally a beast. The beastliness of the damaged adolescent is infamous, and the stuff of child neurology, child psychiatry practices. But, I know of no prospective studies using MRI and evaluating the volume of frontal lobe damage, and then following them prospectively."

Dr. Shuman then mentioned the Glasgow Coma Scale, which, according to Dr. Shuman, is "a scale which simply tells you that the kid needs help now" but "doesn't tell you about prognosis." After the accident, R.P. scored an eight on the scale, which is "moderately severely impaired." Dr. Shuman mentioned that individuals with scores of eight to eleven have a 30% mortality rate, and, of those that survive, half are impaired. The other half – those without apparent problems – are "not described" or "analyzed" behaviorally. Dr. Shuman then noted that the studies relating to the Glasgow Coma Scale are "poor" and "gross" because "[t]heir end point is life or death." Counsel for Menards then asked a question specifically directed to children, like R.P., who are apparently doing well even after a low Glasgow Coma Scale score³:

- Q. But in terms of the children who in many respect seem to be doing quite well for a period of time and then develop a problem in adolescence, we don't have a study of that?
- A. Literature is silent . . . At least as far as I know. Now, I can go looking, but I don't know of anything.

³On numerous occasions, Menards has represented to the Court that R.P. is a straight-A student.

Subsequently, Dr. Shuman discussed the fact that R.P. may develop reading problems in high school, given that the volume of the reading increases and grammar and sentence structure becomes more complex. On this point, Dr. Shuman described the frontal lobe structures that relate to reading. Counsel for Menards then asked if any studies exist assessing how children do after frontal lobe injuries. Before counsel finished his question, however, Dr. Shuman interrupted, stating (presumably tongue-in-cheek), "[a]nd they're all right-handed and only boys, and they have to be white Anglo-Saxon, Protestant, and they have to be from one area of the country. No. There are not." Again, Dr. Shuman reiterated that no prospective studies address how frontal lobe injuries affect academic performance.

Discussion

Menards' argument is straightforward: Dr. Shuman's opinions regarding R.P.'s future behavioral and academic problems fail to comply with FRE 702 and therefore must be excluded. Expert evidence is admissible under Rule 702 if: (1) "the testimony is based upon sufficient facts or data"; (2) "the testimony is the product of reliable principles and methods"; and (3) "the witness has applied the principles and methods reliably to the facts of the case." *Zenith Electronics Corp. v. WH-TV Broadcasting Corp.*, 395 F.3d 416, 418 (7th Cir. 2005) (quoting FRE 702). Plaintiff has the burden of proving compliance with FRE 702. *James v. Marten Transport, Ltd.*, 2006 WL 3755322, at *2 (N.D. Ind. Dec. 15, 2006) (citation omitted).

Under any of these standards, or any other meaningful metric relating to the reliability of expert testimony, Plaintiff cannot meet this burden. Dr. Shuman did not articulate a theory, principles, or methods that have been known, tested, subjected to peer review, or are generally accepted in the scientific community. Further, Dr. Shuman's testimony is not anchored in

research conducted independent of this litigation. No facts have been applied to data, and, along similar lines, Dr. Shuman makes vast inferential leaps from premises to conclusion. *See id*. (describing some of these factors as gatekeeping guideposts articulated by *Daubert* and the Advisory Committee Notes to FRE 702); *see also Chapman v. Maytag Corp.*, 297 F.3d 682, 688 (7th Cir. 2002) (affirming exclusion of expert testimony in part because it "failed to satisfy any of the . . . *Daubert* guideposts for reliability.").

Further, although Dr. Shuman did mention numerous studies during his deposition, they were all retrospective. In other words, they involved a patient who already has behavioral problems, and, subsequently, underwent tests that revealed prior brain damage. R.P. represents the inverse situation. Despite his prior injuries, R.P. is by all accounts well-adjusted, well-behaved, and an exemplary student. Dr. Shuman has not provided information on studies suggesting that someone like R.P. will soon become ensnared in a downward spiral of bad behavior and academic struggle due to his head injury. The available studies, which examine poorly behaved individuals after the fact, are simply incongruent with R.P.'s circumstances.

In sum, as gatekeeper, the Court has a duty to exclude seemingly "off the cuff" testimony like Dr. Shuman's. *See Lang's v. Kohl's Food Stores, Inc.*, 217 F.3d 919, 924 (7th Cir. 2000) ("we have emphasized that experts' work is admissible only to the extent it is reasoned, uses the methods of the discipline, and is founded on data."). Admittedly, this may sound harsh, however, Dr. Shuman himself conceded that his assessment of a best and worst case scenario was done by the "seat of his pants" and grounded in "art instead of science." And, as discussed, he has presented no real empirical evidence or concrete methodology to support his theories regarding R.P.'s forthcoming problems (which have yet to materialize).

In fact, Dr. Shuman criticized the only test he described by name – the Glasgow Coma Scale – as "poor" and "gross." Moreover, Dr. Shuman conceded that the Glasgow Coma Scale did not shed light on someone like R.P. who scored low immediately after the accident but then made a strong recovery. Given the dearth of applicable studies, literature, and evidence, the Court cannot trace the path of Dr. Shuman's reasoning. Moreover, the law is well-settled that when it comes to FRE 702, "because I said so" assertions will not suffice. *See General Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997) ("nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered."); *Zenith Electronics*, 395 F.3d at 419 ("Scientific decisions must be made by scientific rather than rhetorical means.").

Again, it is worth noting that Dr. Shuman is certainly not lacking in terms of pedigree or experience. To the contrary, his curriculum vitae is beyond impressive. But under *Daubert* and the Federal Rule of Evidence, impeccable qualifications only get you so far. Even the most towering of intellects does not have carte blanche to offer "seat of the pants" speculation based on "art instead of science." To be admissible, "a medical expert's ultimate opinion must be grounded in the scientific process and may not be merely a subjective belief or unsupported conjecture." *Lewis*, 561 F.3d at 705. Unfortunately for Plaintiff, Dr. Shuman's testimony regarding theories based upon "seat of the pants" speculation and "art instead of science" simply do not satisfy the operative standards of reliability.

Conclusion

For the reasons set forth above, Menards' Motion to Exclude Portions of the Expected

Testimony of Dr. Robert Shuman (Dkt. 112) is **GRANTED**. Dr. Shuman, while not excluded

altogether, is barred from testifying about the potential behavioral and academic problems that

R.P. might encounter in adolescence and adulthood.

SO ORDERED:

10/06/2011

Hon. Tanya Walton Pratt, Judge

United States District Court

Southern District of Indiana

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